BERGLUNDS PATB '01 12/13 TOR 15:22 FAX 01388102

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

(43) International Publication Date 28 December 2000 (28.12.2000)



Paglish

(16) International Publication Number WO 00/78222 A1

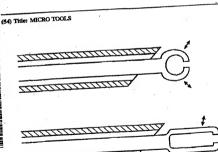
		45/00
(51)	International Patent Classification?: 18/00 // A61L 27/00, 31/00	A61B 17/00.

- (21) International Application Number: PCI/SE00/01286 (22) International Filing Date: 18 June 2000 (18.06.2000)
- (25) Filing Language:
- English (26) Publication Language:
- (30) Priority Data: 21 June 1999 (21,06.1999) SE 9902348-3
- (71) Applicant (for all designated States except US): MICRO-MUSCLE AB [SE/SE]; Berzelins Science Park, \$-582 25 Linköping (SE).
- (75) Inventors/Applicants (for US only): INGANAS, Olle

[SE/SE]; Wernersgatan 13, S-582 46 Linköping (SE). JACER, Edvin [SE/SE]; Rydsvägen 220B, S-584 32 Linköping (SE), SELBENG, Anders [SE/SE]; Lindaliden 3, S-589 35 Linköping (SE).

- (74) Agent: BERGLUND, Erik; Berglunds Patentbyrå AB, Aspetraten, S-590 55 Sturefors (SE).
- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL. IN, IS, IP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA. UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TI, TM), European

[Continued on next page]



(57) Abstract: Tool arrays for biomedical surgery where the tools consist of layered micromuscles arranged to induce geometrical changes and movements via an electrochemically induced change of volume in at least one polymer layer. The tool or tool arrays are mounted on a carrier having the form of a needle being inserted into a cannula/catheter through which the tools can be electrically actuated via external means to induce a mechanical movement to act upon biological structures.